

1 CLAIMS:

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3 What is claimed is:

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5 1. In an automatic pinsetter bowling machine including a ball return wheel (6)

6 for discharge into bowling ball return rails (15), the improvement wherein

7 retriever (1) device having a positive contact base and having one or more pieces

8 with means for securing said device to the ball return wheel (6).

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10 2. A device as recited in claim 1, wherein bottom (7) of retriever (1) is configured

11 convex to physically comply with the inside radius of the ball return wheel (8).

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13 3. A device recited in claim 1, wherein lead guide finger (9) of retriever (1) is designed

14 to retrieve the ball, differentiating between said ball and pins, to guide, capture and house

15 said ball in its concave leading edge (10) in the process of delivery and subsequent

16 discharge into the ball return rails (15).

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18 4. A device as recited in claim 1, wherein the radius of the lead guide finger(11)

19 applies the correct amount of pressure against the back ball lift rod(12) in

20 the process of delivery and subsequent discharge into the ball return rails(15).

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22 5. A device as recited in claim 1, having a leading edge(13) with a radius for assisting

23 in the process of delivery and subsequent discharge into the ball return rails (15).

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25 6. A device recited in claim 1, having a top trailing edge(14) for assisting in

26 the process of delivery and subsequent discharge into the ball return rails(15).

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28 7. A device as recited in claim 1, having an elongated front angled edge(3) for

29 assisting in the process of delivery and subsequent discharge into the ball

30 return rails(15).

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32 8. A device as recited in claim 1, having an angle top rear(4) for assisting in

33 the process of delivery and subsequent discharge into the ball return rails(15).

- 1 9. A device as recited in claim 1, having a recess (5) for assisting in the process of
2 delivery and subsequent discharge into the ball return rails(15).
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- 4 10. A device as recited in claim 1, having a ball impact cushion(16) for assisting
5 in the process of delivery and subsequent discharge into the ball return rails(15).
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- 7 11. A device as recited in claim 1, having a ball protector lip(17) for assisting in the
8 process of delivery and subsequent discharge into the ball return rails(15).
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- 10 12. In an automatic pinsetter bowling machine including a ball return wheel (6)
11 for discharge into bowling ball return rails(15), a device comprising:
12 a positive contact base and having one or more pieces with means for securing
13 said device to ball return wheel(6) wherein lead guide finger(9) of retriever(1)
14 is designed to retrieve the ball, differentiating between said ball and pins, to guide,
15 capture and house said ball in its concave leading edge (10) in the process of
16 delivery and subsequent discharge into the ball return rails (15).
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- 18 13. A device as recited in claim 12, wherein bottom (7) of retriever (1) is configured
19 convex to physically comply with the inside radius of the ball return wheel(8).
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- 21 14. A device as recited in claim 12, wherein the radius of the lead guide finger(11)
22 applies the correct amount of pressure against the back ball lift rod (12) in
23 the process of delivery and subsequent discharge into the ball return rails (15).
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- 25 15. A device as recited in claim 12, having a leading edge (13) with a radius for
26 assisting in the process of delivery and subsequent discharge into the ball
27 return rails (15).
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- 30 16. A device as recited in claim 12, having a top trailing edge (14) for assisting
31 in the process of delivery and subsequent discharge into the ball return
32 rails (15).
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- 34 17. A device as recited in claim 12, having an elongated front angle edge (3)

- 1 for assisting in the process of delivery and subsequent discharge into the
2 ball return rails (15).
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- 4 18. A device as recited in claim 12, having an angle top rear (4) for assisting in the process of
5 of deliver and subsequent discharge into the ball return rails (15).
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- 7 19. A device as recited in claim 12, having a recess (5) for assisting in the process of
8 delivery and subsequent discharge into the ball return rails (15).
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- 10 20. A device as recited in claim 12, having a ball impact cushion (16) for assisting
11 in the process of delivery and subsequent discharge into the ball return rails (15).
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- 13 21. A device as recited in claim 12, having a ball protector lip (17) for assisting in the
14 process of delivery and subsequent discharge into the ball return rails (15).
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- 16 22. In an automatic pinsetter bowling machine including a ball return wheel (6)
17 for discharge into the bowling ball return rails (15), a device comprising:
18 a positive contact base and having one or more pieces with means for securing
19 said device to ball return wheel (6);
20 wherein lead guide finger (9) of said device is designed to retrieve the ball,
21 differentiating between said ball and pin, to guide, capture and house said ball
22 in its concave leading edge (10) in the process of delivery and subsequent
23 discharge into ball return rails (15) ;
24 wherein the radius of the lead guide finger (11) of said device applies the correct
25 amount of pressure against the back ball lift rod (12) in the process of delivery
26 and subsequent discharge into the ball return rails (15) ;
26 said device having a top trailing edge (14) for assisting in the process of delivery
27 and subsequent discharge into the ball return rails (15) ;
28 said device having an elongated front angle edge (3) for assisting in the
29 process of delivery and subsequent discharge into the ball return rails (15) ;
30 said device having an angle top rear (4) for assisting in the process of delivery and
31 subsequent discharge into the ball return rails (15);
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- 1 said device having a recess (5) for assisting in the process
2 of delivery and subsequent discharge into the ball return rails (15) ;
3 said device having ball impact cushions (16) for assisting in the process of
4 delivery and subsequent discharge into the ball return rails (15) ;
5 said device having a ball protector lip (17) for assisting in the process of
6 delivery and subsequent discharge into the ball return rails (15) .

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